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ABSTRACT

Labeling bias is the distortion of diagnostic judgment as a function of prior diagnostic information. University students (N=102) were assigned to 16 treatment groups, with variables of: prior diagnosis attributed to a videotaped target person ("psychotic" versus none), setting in which the observed sample of his behavior was said to occur (clinical versus nonclinical), bogus "outcome measure" completed by subjects following the videotape (inferential versus descriptive), and subjects' training in psychology (advanced clinical and counseling graduate students versus undergraduates). Actual dependent variables were a mental health-illness rating scale and a diagnosis checklist, completed after the bogus outcome measure. Undergraduates exposed to the label "psychotic" gave more pathological judgments than those not given a prior diagnosis; in general they judged the target person to be more pathological than did graduate students. Subjects encouraged by the bogus outcome measure to make inferences about the target person gave more pathological judgments than those encouraged only to describe him; however, this effect was weak and appeared only in an interaction. Subjects viewing the target person in a nonclinical context ascribed more pathology to him than subjects viewing him in a clinical context; this effect of setting was significant only in an interaction. (Author/NRB)

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Some Causes of Labeling Bias
in Psychiatric Diagnosis

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William D. Barley

The medical model of mental illness includes as an important feature the use of psychiatric diagnosis to describe and/or explain abnormal behavioral, cognitive, and affective states. A review of theory, commentary, and empirical investigation revealed an abundance of criticism of psychiatric diagnosis, including such aspects of it as lack of reliability and validity (Spitzer, 1976; Stuart, 1970), vulnerability to intentional misuse by private persons and mental health and governmental authorities (Draguns & Phillips, 1971), and alleged dehumanization and related antitherapeutic consequences for persons who are diagnosed (Braginsky, Braginsky, & Ring, 1969; Laing, 1965, 1967; Maslow, 1960; Rogers, 1957; Sarbin, 1967; Szasz, 1974).

The societal reaction or labeling theory of deviant behavior, as applied to mental illness, has provided support for other charges critical of psychiatric diagnosis or "labeling." Very briefly, the theory holds that the overt and covert behaviors called "mental illness" are violations of societal norms, have a variety of causes, and are usually transitory and relatively meaningless unless they are reacted to by society's relevant official labelers, mental health professionals. Once labeled psychiatrically, according to the theory, the amorphous character of the deviance becomes stabilized to conform to the societal stereotype of mental illness. In the process of stabilization, the abnormality may be exacerbated or prolonged (Antonio, 1975; Gove, 1970; Scheff, 1966, 1974).

Criticisms of psychiatric labeling associated with the theory include such undesirable effects for the person labeled as social degradation, self-denigration, and exacerbation and stabilization of otherwise transitory abnormality (Antonio, 1975; Braginsky et al., 1969; Ellis, 1967; Goffman, 1963; Sarbin, 1967; Scheff, 1966; Stuart, 1970; Szasz, 1974).

A corollary of labeling theory is that judgments of mental illness are not, in the main, functions of the abnormal behavioral, cognitive, and affective phenomena to which they are applied. Rather, these judgments are attributed to institutional, professional, conceptual, and other influences on mental health professionals to diagnose in certain ways (Scheff, 1966). This perspective leads logically to the study of labeling bias, which is the distortion of diagnostic judgment as a function of prior diagnostic information available to the person currently making the judgment (Sushinsky & Wener, 1975). The labeling bias effect may be considered a type of expectancy effect in which perceptions of an observer are altered without necessarily influencing the behavior of the observed (Rosenthal, 1976; Rosenthal & Jacobson, 1968). Both clinical and non-clinical investigations in various fields of psychology have shown that expectancies form early in observation of events and affect the way in which the events are interpreted (Asch, 1946; Kelley, 1950; Langer & Abelson, 1974; Mischel, 1968; Scheff, 1966). Clinically oriented research and commentary suggest that expectancies based on psychodiagnostic labels have harmful effects for labelees such as constriction of more thorough diagnostic processes (Leeman, 1975; Lewis, 1974; Lion & Leaff, 1973; Mischel, 1968; Rosenhan, 1973, 1975), dis-

couragement of therapeutic effort (Ellis, 1967; Gauron & Rawlings, 1973; Menninger, 1969; Minor, 1974), negative evaluation by others (Minor, 1974), and long-term stigmatization (Minor, 1974; Petroni & Griffin, 1969).

Research in labeling bias has been extensive in the past decade (Babigian, Gardner, Miles, & Romano, 1965; Caetano, 1974; Foster, Ysseldyke, & Reese, 1975; Gordon, 1976; Langer & Abelson, 1974; McCoy, 1976; Rosenhan, 1973; Sattin, 1974). Aspects of the phenomenon have been studied in many ways, from naturalistic one-shot case studies and ex post facto analysis to true experimentation. Most of these investigations revealed problems with external validity related to use of subject populations other than those to which generalization of results was desired, multiplicity of treatments to which subjects were exposed, and reactivity of treatments. Most were analogue studies. On the other hand, most were well-enough controlled to permit reasonable confidence in their internal validity.

The variety of experimental conditions under which labeling bias has been studied has shown it to be a robust phenomenon, at least in the laboratory. This same variety has also made a clear understanding of the variables related to the effect difficult. Among experiments investigating comparisons of negative-label versus no-label conditions (the paradigm which seems most relevant to the actual clinical diagnostic situation), several potentially important independent and nuisance variables have been identified (Adams, 1973; Combs & Harper, 1967; DiNardo, 1975; Minor, 1974; Pollack, Huntley, Allen & Schwartz, 1976; Romanoff, Lewittes & Simmons, 1976; Sushinsky & Wener, 1975; Temerlin & Trousdale, 1969). The present study manipulated four such variables and

posited several hypotheses regarding their effects on psychodiagnostic judgments.

The variables chosen for manipulation were prior label attributed to the target person ("psychotic" versus none), setting in which the sample of the target person's behavior observed by subjects was said to have occurred (clinical diagnostic interview in a hospital conducted by a psychology intern versus interview conducted by a sociology graduate student as part of a nonclinical study), basis for mental illness and diagnostic judgments made by subjects subsequent to their observation of the target person (bogus outcome measure requiring inference about the target person versus bogus outcome measure requiring behavioral description of him), and level of subjects' training in psychology (advanced clinical and counseling psychology graduate students versus undergraduates taking a psychology course). A completely randomized factorial design (Kirk, 1968) was used, yielding 16 treatment conditions. Actual dependent variables were a four-point rating scale of mental health--mental illness (completed by both graduate and undergraduate subjects) and a previously scaled diagnosis checklist (administered to graduate students only). On the basis of previous research comparing negative- versus no-label conditions, it was hypothesized that subjects in the psychotic label, clinical diagnostic interview, inferential bogus outcome measure, and graduate student treatment conditions would rate the target person more mentally ill and/or diagnose him more pathologically than would subjects exposed to the other level of each independent variable.

Subjects were 102 male and female students at a major university in the southwest. Undergraduates were randomly assigned regardless of sex among eight treatment conditions, and graduate students were similarly assigned among the other eight. The following procedure was administered to subjects alone or in small groups.

Subjects were told that they were participating in a study of the effects of training and education in psychology on accuracy of interpersonal judgments. They were then told in writing that they would observe a 20-minute segment of an interview involving two persons and, depending upon the treatment condition to which they were assigned, that the interview was an initial diagnostic meeting between a prospective psychotherapy patient and a psychology intern in a hospital setting in another city or part of a sociological study involving a paid volunteer and a sociology graduate student in the latter's campus office at another university. Subjects were also either told that the interviewee had previously been diagnosed psychotic by psychiatrists and psychologists at their university or were given no diagnostic information. Only the interviewee (the target person) was on camera. Both he and the off-camera interviewer were paid adult male confederates of the experimenter. The interview dialogue showed a young man describing an essentially normal childhood and current adjustment (Temerlin & Trousdale, 1969).

Following their observation of the videotape, subjects completed one of the two bogus outcome measures and then one or both of the two actual dependent variables. Finally, a manipulation check was administered.

Completely randomized factorial analyses of variance were used to analyze the results of the mental health--mental illness rating scale (MHMI), and Mann-Whitney U tests and Kruskal-Wallis analyses of variance were applied to the diagnosis checklist data.

Contrary to the expectation that subjects with more experience in the field of psychology would be more susceptible to labeling bias than those with less, undergraduates' MHMI ratings were significantly more pathological than were graduate students'. Moreover, no significant differences involving label, setting, or bogus outcome measure were obtained on the diagnosis checklist which had been administered to graduate students only, and analysis of variance performed on only graduate students' MHMI ratings also failed to find significant differences in those three independent variables. Previous research had suggested both that graduate students and mental health professionals were more susceptible to labeling bias than were laymen (Temerlin & Trousdale, 1969) and that subjects' mere awareness of the labeling bias effect or of labeling bias manipulation in experiments did not prevent occurrence of the effect (Adams, 1974; Foster, et al., 1975; Gordon, 1976; Temerlin & Trousdale, 1969). Further, a strong possibility existed that graduate student subjects in the present study tried to "help" the experimenter by conforming to his hypotheses. Thus, the unexpected direction of this finding implies that, at least in the present sample, graduate students or those responsible for their education have taken active steps to combat the influence of this variable.

The label manipulation yielded results in the hypothesized direction; undergraduates told that the target person was psychotic rated him significantly more severely on the MHMI than did those not given much information.

The manipulation of bogus inferential and descriptive outcome measures also obtained significant results in the expected direction. Subjects allowed to make inferential judgments about the target person prior to completing the actual dependent variables gave him more pathological MHMI ratings than did subjects in the other level of this variable. However, this outcome occurred only in interaction with the setting (nonclinical level) and level of experience (undergraduate level) independent variables. Moreover, the effect sizes for the main effect and interactions of the bogus outcome measure manipulation were consistently smaller than those of the three other independent variables. A review of previous research had suggested that this variable might play an important role in labeling bias as studied in the laboratory; subjects forced to consider the target person in behavioral-descriptive terms might be less easily misled by prior diagnostic suggestion than subjects allowed to conceptualize him in a more general, inferential way (Pollack et al., 1976). In the present study, label did not interact with bogus outcome measure, but this latter variable is related to the degree of psychopathology perceived by subjects.

Finally, allegations by advocates of labeling theory (Rosenhan, 1973, 1975) and an analysis of previous labeling bias studies led to the

expectation that subjects viewing the target person in a clinical context would ascribe more pathology to him than subjects given a nonclinical rationale for his participation in an interview. A significant difference was obtained between the clinical and nonclinical levels of the setting variable, but the difference was in the direction opposite to that predicted, and it occurred in interaction with the bogus outcome measure and level of experience manipulations. The most likely explanation for the unexpected finding is a methodological one; the atypical information that a videotape of a paid volunteer being interviewed in another university's sociology department's study had been observed by mental health professionals at the subjects' university may have implied to subjects a greater degree of pathology for the target person than information given to subjects in other treatment conditions.

To conclude, the labeling bias phenomenon was replicated in the present study. However, it was found to operate in a different fashion than was anticipated. The present results suggest that psychology graduate students are not as easily misled by prior diagnostic information as in the past; perhaps the same change in susceptibility to labeling bias would be found if mental health professionals were also studied. Another interesting implication of these results is that specific, descriptive, behavioral methods of diagnosis or personality description might be refined to the point that they play an important, as well as statistically significant role in avoidance of incorrect identification of mental illness.

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